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ABSTRACT

There appear to be four major schools of thought concerning adolescent depression: (1) depression as a clinical disorder is not possible before late adolescence or early adulthood; (2) depression in children and adolescents is a unique clinical entity, different from adult depression; (3) adolescents manifest depression in the same way as adults; and (4) depression as a disorder rarely occurs in early or middle adolescence. The current major issues in the study of adolescent depression involve conflicts concerning the diagnostic criteria for adolescent depression and its status as a valid clinical disorder. Although the prevalence of depression in adolescents has been extremely difficult to evaluate, recent research has revealed a homogeneous group of adolescents who manifest a related set of symptoms similar to an adult depressive disorder. While studies suggest that adolescent depression is more prevalent than traditionally thought, adolescent depressive disorder still remains only a descriptive concept and not a valid clinical disorder. Preliminary research is beginning to provide the evidence needed to establish adolescent depression as a distinct clinical disorder. The general state of methodology is improving the study of adolescent depression. Evidence derived from the research literature supporting the concept of adolescent depression as a clinical disorder is considerably stronger than it was a decade ago. Uncertainty regarding a valid and reliable means of diagnosis and classification remains the major obstacle to its empirical verification. Future efforts need to focus on developing more systematic methods of assessment and the adoption of a standardized set of diagnostic criteria. Six pages of references conclude the paper. (NB)

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ADOLESCENT DEPRESSION: ISSUES OF PREVALENCE, PHENOMENOLOGY, AND NOSOLOGY

Doctoral Research Paper
for the Degree of Doctor of Psychology

ROSEMEAD SCHOOL OF PSYCHOLOGY

BIOLA UNIVERSITY

DANIEL DOUGLAS HARTMAN

1986

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ADOLESCENT DEPRESSION: ISSUES OF PREVALENCE, PHENOMENOLOGY, AND NOSOLOGY

BY

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A doctoral research paper submitted to
Rosemead School of Psychology
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1986

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Abstract

The status of adolescent depression as a clinical disorder is the focus of the current review. The literature on depression in adolescents is examined to provide information on the prevalence, phenomenology and nosology. Adolescent depression is more prevalent than traditionally thought. It has a homogeneous set of related symptoms similar to the adult depressive disorder. Insufficient evidence concerning the validity and reliability of the diagnostic criteria for adolescent depression obstruct its recognition as a valid clinical disorder. It is important that researchers agree on an initial set of diagnostic criteria and modify them as needed. Further research is needed to establish adolescent depression as a clinical disorder.

Adolescent Depression: Issues of Prevalence, Phenomenology, and Nosology

The systematic and empirical study of depression in children, adolescents, and adults has long suffered from the lack of precision in terminology. The term depression has both psychological and nonpsychological usage. Even when used in a purely psychological or clinical sense, the term is ambiguous. Depression may simply refer to an occasional and shortlived dysphoric mood which is a universal part of human existence. As a symptom, it can occur as a response to a loss or disappointment or can exist for no identifiable reason. When depression is seen as a symptom in psychologically impaired persons it may or may not be part of a depressive syndrome or depressive disorder. It may or may not be part of another clinical disorder. Depressive symptoms are commonly associated with a wide variety of human experiences, both normal and impaired.

The term depressive syndrome implies that dysphoric mood occurs in conjunction with other symptoms and that these symptoms regularly occur together. In addition to changes in affect there are disturbances in vegetative, psychomotor, cognitive, and motivational functioning. Depression as a syndrome may occur as a primary problem, or in combination with a wide variety of physical and mental disorders, such as "rheumatoid arthritis, Cushing's disease, alcoholism, antisocial personality, anxiety

disorder, and schizophrenia," (Cantwell, 1983, p.3).

The term depressive disorder implies even more than the concept of a depressive syndrome. It implies that not only is there a syndrome causing some degree of impairment, but that there is also a characteristic clinical picture, natural history, response to treatment, and potential family, environmental, and biological factors.

The question of whether or not adolescent depression is a valid clinical disorder provides the impetus for this review. There is little doubt that depressive mood and symptomatology exist in adolescence. At issue in the present review is the status of adolescent depression as a disorder which implies more than a recognizable set of related symptoms. In adults, several different depressive disorders have been empirically delineated on the basis of differing clinical pictures. These adult depressive disorders differ not only in clinical picture, but also in epidemiology, nosology, genetic and biological correlates, intervention responsiveness, pharmocological responsiveness, and salient psychosocial factors (Andreasen, 1982; Bellack, 1985; Hirschfield & Cross, 1982). In contrast, research on adolescent depression is in its infancy. To date there has been controversy as to whether or not depressive symptoms can be reliably differentiated from other behavior disorders in adolescence (Garrison, Schoenbach, & Kaplan, 1985; Lefkowitz & Burton,

1978). It is only within the last decade that systematic investigations have begun to explore the basic features of adolescent depression. The purpose of the present review is to critically examine the research to determine the current clinical status of adolescent depression.

This task will initially be approached by discussing the historical and theoretical factors that have had an impact on the study of adolescent depression. The research will then be examined in terms of three primary factors: prevalence, phenomenology, and nosology. These three areas encompass the bulk of the research on adolescent depression to date. They also constitute the essential features of the systematic study of any psychopathological disorder. They are interdependent and form the core for the further study of natural history, genetic and biological correlates, treatment responsiveness, and other related components of a psychopathological disorder.

The first area, prevalence, will cover the general frequency of adolescent depression in an attempt to establish that it is a clinical entity worth investigating. The second area, phenomenology, will include the research delineating adolescent depressive symptomatology, what specifically it is and how it relates to adult depressive symptomatology. The section on nosology will include the diagnostic criteria currently utilized by researchers to represent the manifestations of depression as it occurs in

adolescents. The review will conclude with a discussion of the current clinical status of adolescent depression and the implications for further research.

In this review the term adolescent depression will refer to major depression unless otherwise specified. Bipolar affective disorder in adolescents, although closely related, is not within the scope of this review.

Historical and Theoretical Influences

Clinical and theoretical traditions have long maintained that regression and turmoil are universal features of normal adolescent development bearing minimal relation to adult patterns of psychopathology. This has led to the persisting conception that significant depression in adolescence is indistinguishable from normal adolescent turmoil. Although this notion has been empirically refuted (Masterson, 1967; Rutter, Graham, Chadwich, & Yule, 1976), it continues to infuse controversy into the study of adolescent psychopathology (Weiner & Del Gaudio, 1976). The rapidly rising adolescent suicide rate, and the hypothesized link between depression and suicide (Emery, 1983) underscore the pragmatic importance of examining this controversy and the status of research on adolescent depression.

Additional obstacles to the study of adolescent depression that have added to the controversy involve clinicians' tendencies to refrain from inquiring into the

full range and variety of psychopathology in adolescents (Carlson & Strober, 1979). Clinicians have attributed this to the adolescent's propensity to deny depressive symptomotology, the need to establish immediate trust and support, and a concern over the damaging influence of psychiatric labeling at such a young age. There has also been a tendency to focus on behavior precipitating referral rather than the affective state of the patient. Distinguishing severe depression from schizophrenia in adolescents has also been a problem (Tsutsul'kovskaya, Orlova, & Mikhailova, 1983). Finally, the role of normal developmental changes and normal differences between early, middle, and late adolescence have introduced great complexity into the study of adolescent depression (Hodges & Siegel, 1985). These factors have inhibited the systematic investigation of adolescent depression and have added to the controversy about the conceptualization of adolescent depression.

Four major schools of thought concerning adolescent depression have developed from this controversy. The first view holds that depression as a clinical disorder is not possible before late adolescence or early adulthood (Anthony, 1975; Freud, 1961a, 1961b). This hypothesis developed from orthodox psychoanalytic thought and is based on the assumption that the mechanisms of depression require both a well-differentiated, strong ego, and an overly harsh

superego. Accordingly an adolescent's intrapsychic structure is insufficiently developed to permit clinical depression during adolescence.

The second view contends that depression in children and adolescents is a unique clinical entity, different from adult depression in its essential features. It holds that most adolescents do not express depression directly, but through depressive equivalents such as aggressive or antisocial acting out, hyperactivity, somatic complaints, school and learning problems, substance abuse, and even anorexia nervosa (Chwast, 1967; Glaser, 1967; Malmquist, 1971a, 1971b; Spiegel, 1967; Toolan, 1962). This concept of masked depression has been heavily criticized. The behaviors cited as masking depression appear to represent practically the entire range of childhood and adolescent behavior disorders. The concept of masked depression has been impossible to operationalize and there have been no demonstrable connections between depressive equivalents and the underlying depression (Carlson & Cantwell, 1980). Currently it is generally held that the depression would not be masked to an alert clinician conducting a thorough diagnostic evaluation. Even so, masked depression continues to be a prominent concept in current research.

The third school of thought which comprises the largest contingent proposes that adolescents manifest depression in the same way as adults, including the affective, cognitive,

motivational, vegetative, and psychomotor components (Cantwell & Carlson, 1983; Hudgens, 1974; Kovacs & Beck, 1977; Poznanski, 1981; Puig-Antich, 1982; Strober, Green, & Carlson, 1981). It supports the use of adult diagnostic criteria with adolescents, in as much as the essential features are the same. This view, however, acknowledges the existence and importance of age-specific associated features that vary from child to adolescent to adult. Examples of these are found in the DSM-III (American Psychiatric Association, 1980), and for an adolescent male may be negativistic or antisocial behavior, feeling misunderstood, wanting to leave home, school difficulties, hypersensitivity to rejection, or substance abuse. Most of this contingent also state that depressive equivalents are more commonly associated with nonaffective forms of adolescent psychopathology or are concurrent with the depressive disorder. Proponents of this view contend that adolescent depression is underdiagnosed.

The fourth view is diagnostically very similar to the first, but stems from a different theoretical basis. It claims that depression as a disorder rarely occurs in early and middle adolescence. Its proponents view the symptoms reported in the literature on adolescent depression as normal transitory developmental phenomena that will dissipate over time with no significant ill effects (Gittleman-Klein, 1977; Graham, 1981; Lefkowitz & Burton,

1978). Proponents of this view contend that adolescent depression is over-diagnosed.

The current major issues in the study of adolescent depression involve conflicts concerning the diagnostic criteria for adolescent depression and its status as a valid clinical disorder. Both issues have their roots in the theoretical differences of the four positions mentioned above. Conflict about the diagnostic criteria used to delineate adolescent depression stems from differences between the second and third positions. Proponents of the second position conceptualize adolescent depression as different from adult depression which results in the need for different diagnostic criteria. Proponents of the third position conceptualize adolescent depression to be the same as adult depression. This results in their use of the diagnostic criteria of adult depression with adolescents. Conflict regarding the clinical status of adolescent depression stems from the differences between the third and fourth positions. Researchers associated with the third position view adolescent depression as psychopathological. Researchers associated with the fourth position view adolescent depressive symptoms as normal developmental trends, and therefore not pathological.

Studies concerning the prevalence and phenomenology of depression in adolescents will be covered first. This will provide the foundation necessary for the discussion of the

conflict concerning the diagnostic criteria for adolescent depression, that will be covered in detail in the nosology section. The conflict about the clinical status of adolescent depression will be addressed progressively through the review and covered in detail in the conclusion.

Prevalence

The prevalence of depression in adolescents has been extremely difficult to evaluate. The general historical and theoretical obstacles mentioned above have played a major role in this difficulty. More recently, research design and methodological limitations have also impeded progress toward determining an accurate frequency. Widely varying incidence rates of adolescent depression have been reported. This presumably is due to a variety of factors: the variability of subject populations, the nondifferentiation of restrictive research criteria from broader clinical criteria, and the failure to operationalize and standardize the diagnostic criteria and methods of assessment (Hodges & Siegel, 1985; Kovacs & Beck, 1977). This wide range of incidence is seen in a review of 11 epidemiological studies from 1978 to 1979, covering child and adolescent populations (Kashani, Husain, Shekim, Hodges, Cytryn, & McKnew, 1981). Prevalence ranged from general population rates of 0.14% - 1.9% to psychiatric population rates of 1.8% - 59%.

In a general population study of child and adolescent

psychopathology (N = 2,199), Rutter, Tizard, and Yule (1976) found 0.45% of all 14- and 15-year-olds to be clinically depressed while depressive symptomatology was even more common. In an international study of the psychiatric admissions of 15 - 19-year-olds Henderson, Krupinski, and Stoller (1971) found rates of depressive psychosis ranging from 0.002% - 0.035%. Less restrictive criteria for psychoneurotic depression resulted in rates that were three to four times higher. Rates for both affective conditions were exceeded by the rates of schizophrenia, personality disorder, and transient situational disorder in four of the five countries studied. This appears to contradict common sense expectations that depression should be more prevalent, particularly in relation to schizophrenia and personality disorders.

The United States Department of Health, Education, and Welfare's (1977) 1975 rates for psychiatric diagnoses, show that rates for depression vary greatly with the type of mental health facility. The rate of diagnosed depression for patients under 18 ranges from 1% in private general hospitals to 12.8% in public general hospitals to 3.7% in public mental hospitals. In contrast, the rate of diagnosed transient situational disorders for patients under 18 ranges from 29.6% to 19.2% to 54.3% respectively. Further analysis indicates that as age increases the incidence of depression increases and transient situational

disorder decreases.

Although these three studies are difficult to compare due to methodological inconsistencies, they do appear to indicate that adolescent depression is quite rare and less common than other psychiatric diagnoses. However, in examining the studies more closely, Rutter et al. (1976) and Henderson et al. (1971) utilized surveys and interviews that contained few depressive items. All three of these studies are limited by a lack of operationalized definitions. Standardized assessment methods and diagnostic criteria were also lacking. These investigators appear to subscribe to the view that adolescent depression is indistinguishable from normal adolescent turmoil. This is most apparent in the higher rates of transient situational disorders, and the concurrent decrease of these rates along with an increase of depression, as age increases. It is possible that more refined diagnostic methods may reveal that adolescent depression is more prevalent than these figures indicate.

A 1977 unpublished study reported by Apter and Tyano (1984) indicates that a refinement of diagnostic methods may indeed have this result. Using an adolescent psychiatric inpatient population they compared traditional diagnostic technique with more current standardized assessment and diagnostic methods. They found a dramatic difference in incidence from negligible to 27.7%,

respectively. They emphasized that this was not a change in prevalence, but rather a change in attitude. Conclusions from these findings are difficult to evaluate given the lack of methodological description. Systematic research specifically designed to examine adolescent depression and its prevalence is needed if this issue is to be adequately addressed.

In one of the first attempts, Albert and Beck (1975) administered a questionnaire which included a modified short form BDI (Beck Depression Inventory: a thirteen item standardized self report questionnaire with weighted response categories) to a general population ($\underline{N}$ = 63) of seventh and eighth graders. They found that 33.3% were moderately to severely depressed and that 35% acknowledged current suicidal ideation. These results are constrained by the use of adult BDI norms with adolescents. There is no evidence that the adult BDI norms delineate the same condition in adolescents as they do in adults. The high rate of moderate to severe depression may merely indicate normal developmental depressive symptomotology as opposed to clinical depression. This research made no attempt to differentiate symptom from disorder, which could have increased the specificity and accuracy of the results.

In another general population study (Schoenbach, Kaplan, Grimson, & Wagner, 1982), 624 junior high students were administered a questionnaire which included an adult

CES-D (Center for Epidemiologic Studies Self Report Depression Scale: a 20-item self report, weighted scale). This information was then evaluated with diagnostic criteria that was closely related to the Research Diagnostic Criteria (RDC). The RDC are a set of operationalized diagnostic criteria for depression and other psychiatric disorders developed for psychiatric research with adults. Schoenbach et al. (1982) found a 2.9% rate of depression while the rate of depressive symptomatology was found to be 50%. In a study using rigorous methodology, Kashani and Simonds (1979) found that 1.9% of 103 randomly selected children within the general population, aged 7 to 16, met DSM-III criteria for depression and 17% demonstrated clinically significant depressive symptomatology.

Hudgen's (1974) study of adolescent psychiatric inpatients (N = 110, 14 - 19-years-old) was the beginning of systematic and comprehensive research on adolescent depression. Using operationalized assessment and diagnostic methods he found prevalence rates of 17.2% depression, 10% bipolar depression, and 12.7% undiagnosed psychiatric illness most like depression. Of this sample, 40% had affect-related diagnoses. This is much higher than any previous finding.

In a study of symptom severity with 10- to 15-year-olds, who were psychiatric inpatients and outpatients (N =

39), Kovacs and Beck (1977) used the CDI (Children's Depression Inventory: a 27 item self report, weighted response scale developed from the BDI) and found 14% to meet the criteria for depression. Unfortunately, they did not compare their CDI findings with other independent assessments or diagnoses.

Carlson and Cantwell (1979) found 28% (14% primary, 14% secondary) of their psychiatric inpatient and outpatient population (N = 102) of 10- to 17-year-olds to be depressed. Secondary depression was defined as any concurrent psychiatric disorder that preceded depression. They used semi-structured assessment interviews, self report SCDI's (short form of the Children's Depression Inventory) and RDC/DSM-III diagnostic criteria. An interesting finding was that children who reported depressive symptoms both in an interview and on a self report measure were more likely to have a depressive disorder than those who responded only to one or the other. Also at UCLA, Strober, Green, and Carlson (1981a) with a psychiatric inpatient population (N = 150) aged 12 to 17 found 26% to be depressed, using standardized assessment (SADS, Schedule for Affective Disorders and Schizophrenia: a structured psychiatric diagnostic interview) and the RDC diagnostic criteria.

Two unique studies with incarcerated juvenile delinquents helped to expand the investigation of

adolescent depression. Chiles, Miller, and Cox (1980) evaluated 120 incarcerated 13- to 15-year-olds with a structured interview, modified BDI, and RDC diagnostic criteria. They found depression in 23% of this sample. The second study, using a semi-structured interview and DSM-III diagnostic criteria with 100 incarcerated 11- to 17-year-olds, found an 18% depression rate (Kashani, Manning, McKnew, Cytryn, Simonds, & Wooderson, 1980). Both investigators recommended that their findings be interpreted carefully due to the distress-inducing effects of incarceration.

This systematic research does appear to support Apter's and Tyano's (1984) inference that adolescent depression is more prevalent than previously thought. Adolescent depression appears to exist in 2% to 3% of the general population. Albert's and Beck's (1975) results most likely reflect depressive symptomatology, rather than clinical depression. Adolescent depression in a psychiatric/delinquent population appears to range from 14% to 28%, with affect-related conditions as high as 40%. Although this research shows increased systematization, it could benefit from greater standardization of assessment methods and diagnostic criteria. Also needed are more large scale general population studies, the validation of self report measures, and increased age specificity.

This research is indeed in its formative stage.

Results indicate that there is a homogeneous group of adolescents who manifest a related set of symptoms that are similar to an adult depressive disorder. This does not confirm the existence of an adolescent depressive disorder. It does, however, emphatically suggest that depressive symptomotology is clinically more prevalent than has been traditionally thought. A more detailed examination of depressive symptoms will be addressed in the next section.

Phenomenology

Kovacs and Beck (1977) evaluated 14 studies of child and adolescent depressive symptomotology done prior to 1974. First, they found that although many of the studies claimed uniqueness for child and adolescent depression, the actual symptoms reported indicated they were all similar to the adult disorder. Secondly, they claimed that the concept of masked depression was unnecessary and clinically insignificant, because it indicated nothing more than presenting complaints or age appropriate ways of manifesting psychological discomfort.

While this is a highly valuable review and has been pivotal to research on child and adolescent depression, two obvious criticisms present themselves. First, only 2 of the 14 studies reviewed included subjects over 12 years of age. This may have resulted in a poor representation of actual adolescent depressive symptomotology. Second, the fact that not all the studies emphasized dysphoric mood, as

a primary symptom was apparently minimized. With adult depression, dysphoric mood is considered one of the definitive symptoms. These criticisms do not necessarily change the validity of Kovacs' and Beck's (1977) conclusions, but they do make their application to adolescents dubious.

There has not been a detailed evaluation of the research on child and adolescent depressive symptomotology, other than Kovacs' and Beck's (1977), although many have cited a need for it (Carlson & Strober, 1983; Hodges & Siegel, 1985; Lefkowitz & Burton, 1978; Poznanski, 1981). Unfortunately, based on the studies reviewed, Kovacs and Beck (1977) did not present a formulated symptom cluster for child and/or adolescent depression. They stated that there was a considerable need to further delineate the domain of child and adolescent depressive phenomena using studies of increased empirical rigor. The author intends to do this with specific relation to adolescent depressive symptomotology by reviewing the relevant research that has taken place since 1974.

Descriptions of adolescent depressive symptomotology continues to revolve around its similarities to, and differences from adult depression. Ten studies on adolescent depressive symptomotology that represent advances in methology and systematic assessment will be examined. These studies, however, still have

methodological limitations. Table 1 lists each of the ten studies and their reported symptoms of adolescent depression, and compares them to each other as well as to a pair of commonly cited studies of adult depressive symptomotology. The table includes any symptom that occurred in at least 50% of any of the depressed samples. Interpretations of the comparisons are limited, because the symptoms lack complete operational definitions, and because the sample populations, as well as the assessment and diagnostic procedures, differ. The table does, however, provide a general comparison.

These studies will be organized into four general categories to facilitate review. The first category will include those studies which primarily utilized a self-report assessment scale to obtain findings of depressive phenomena. The second and largest category will include studies of psychiatric inpatient and outpatient samples of depressed adolescents and their corresponding symptomotology. The third category will include studies on the depressive symptoms of incarcerated adolescent delinquents who have been diagnosed with depression. The fourth category will include the study of a special population of depressed school phobics.

Self Report Assessment

Regarding the first category, Mezzich and Mezzich (1979) used a clinically developed self report scale

Table 1. Comparison of Adolescent and Adult Depressive Symptomotology

Sample Data	Schoenbach et al. (1982)		Carlson & Strober (1979)		Strober et al. (1981a)		Chiles et al. (1980)		Kolvin et al. (1984)		Woodruff et al. (1967)	
	Mezzich & Mezzich (1979)	Hudgens (1974)	Inamdar et al. (1979)		Carlson & Cantwell (1979)		Kashani et al. (1980)		Baker et al. (1971)			
population	P	G	P	P	P	P	P	D	D	S	P	P
sample size	46	11	19	28	30	40	28	28	18	23	100	54
age range	12-18	12-15	14-19	13-17	12-18	12-17	8-17	13-15	11-17	9-14	adult	adult
assessment method	SRS	SRS	SI	SI	SSI	STI	SI	SI	SSI	SSI	-	-
diagnostic criteria	U	RDCL	RDCL	DSM-III	U	RDC	DSM-III	RDC	DSM-III	U	-	-
% Exhibiting Symptom												
dysphoria/sad	100	82	95	93	100	95	70.4*	82*	100	83	100	93
anhedonia	100	89	79	71	83	70	66.7*	57*	72	52	77	89
hopelessness	100	44	89	43	-	-	70.4*	-	-	-	56	61
nervous/worry	-	-	74	39	-	43	-	-	-	-	69	30
low self esteem	100	54	63	64	57	63	74.1*	-	-	-	38	74
impaired concentration	-	90	84	82	70	70	-	64.3*	72	-	67	19
school difficulties	-	-	-	-	73	-	48.1*	-	-	70	-	-
thought slowed	-	-	53	46	37	-	-	-	-	-	67	69
self reproach	-	-	-	54	-	55	-	57*	44	-	-	59
guilty feelings	-	-	63	32	-	-	-	55.6*	44	-	32	24
crying	-	82	32	43	-	-	-	-	-	48	61	50
irritable/agitated	-	-	42	54	33	38	-	42.9	16	65	67	93
isolation/run awa y	91.3	-	-	-	63	78	-	-	-	-	-	-
sleep difficulties	91.3	90	74	61	57	65	70.4*	64.3*	100	74	77	59
appetite/weight change	-	60	53	61	40	69	40.7	89.3	94	-	61	78
anorexia	-	-	74	68	-	-	-	-	-	22	80	87
fatigue/tired	-	90	58	61	30	55	66.7*	67.9*	44	52	97	57
somatic complaints	-	-	53	50	37	-	70.4*	30	-	57	25	74
psychomotor retard/agit	-	-	-	21	-	28	-	42.9*	16	-	60	26
suicide ideation	91.3	-	84	61	77	70	88.9*	61*	66	62	63	41
suicide attempts	-	-	68	32	60	-	-	39*	-	-	15	11

Key P-psychiatric inpatient, G-general population, D-incarcerated delinquent, S-school phobic. SRS-self report scale, SI-structured interview,SSI-semi-structured interview, ST I-standardized interview. U-unique criteria, RDCL-RDC like criteria

* denotes significant symptomatic difference from all other diagnostic groups($p < .05$) within that study

derived from MMPI items to assess depressive phenomena in their adolescent psychiatric inpatient population. The criterion for inclusion in the depressed sample was determined statistically. Any patient whose score was greater than, or equal to, one standard deviation above the mean, was included in the depressed sample. There are major concerns about the validity of this criterion for delineating depression since it was neither substantiated nor correlated with any other independent assessment. Also, the range and specificity of depressive symptoms were limited to the content of the derived MMPI items and the true/false response format. However, Nowicki and Nowicki (1979) did delineate feelings of "lacking understanding from others" and "social abandonment". These were specific to the adolescent depressive sample in comparison with the nondepressed adolescents and previous MMPI measures of adult depression.

Schoenbach et al. (1982) studied adolescent depressive symptomotology using a self report assessment scale, the CES-D, in conjunction with several other questionnaires. To delineate their depressed sample they applied RDC-like diagnostic criteria for depression to the information obtained from a general population of junior high students. Both of these studies used unvalidated assessment scales when used with adolescents. Both studies lacked clinical assessment interviews. The results, however, are similar

to adolescent studies using clinical assessment interviews. This is promising because of the potential use of these self report assessment scales in assessing very large samples, particularly within the general population. A major point of caution, when using this technique is differentiating normal developmental depressive phenomena from actual psychopathology. The application of the RDC-like diagnostic criteria by Schoenbach et al. (1982) to their sample was a good attempt to control for this.

Psychiatric Patients

The second category consists of five studies which utilized psychiatric populations. Rudgens (1974) was the first to thoroughly and systematically investigate adolescent depressive symptomatology. His results indicated that adolescents who were diagnosed as depressed appeared to be very similar to adult depressives, in terms of symptomatology. He found none of the more severe vegetative and psychotic symptoms that have been reported in a small portion of depressed adults. Rudgen's results did not support the contention of his day that depression presents itself atypically in adolescents. They did support the contention that depression does occur among teenagers with implications that it is a valid clinical disorder. The only potential limitation of the study was the representativeness of his depressed sample. The age range of the subjects was 14 to 19 years, but the mean age

age 11-16 years, which represents late adolescence in which development and psychopathology are beginning to take on more adult characteristics. Hudgen's (1974) results are very important, but may not necessarily represent early and middle adolescence.

Carlson and Strober (1979) conducted a very comprehensive study of depressive symptoms using a DSM-III diagnosed group of depressed adolescent psychiatric inpatients. Of the 33 symptoms assessed, 17 occurred in at least 50% of the depressed sample indicating a relatively homogeneous sample. The classic adult endogenous symptoms of loss of pleasure, self reproach, guilty thoughts, agitation, sleep difficulties, anorexia, and weight changes were well represented in this sample of depressed teenagers. This study was unique in its assessment of severe manifestations of depression. Four patients (14%) displayed delusions of guilt, sin, or nihilism. One (4%) patient experienced auditory hallucinations, four (14%) experienced paranoid ideation, and two (7%) had feelings of depersonalization. In addition, 12 patients (43%) came from families with histories of affective disorders. In five of these cases, multiple generations were involved. This research presents a thorough picture of adolescent depressive symptomotology which is very similar to the symptomotology of adults in scope and range of severity. The UCLA Neuropsychiatric Institute's research was unique

in that it reported severe psychiatric symptoms. Many other studies of adolescent depression use psychosis as an exclusionary criterion.

A study by Inamdar, Siomopoulos, Osborn, & Bianchi (1979) claimed that there were many similarities between the features of adolescent and adult depression, but cautioned there were also important differences. They did not observe symptoms such as restlessness, pacing and handwringing, motor retardation, feelings of persecution, hopelessness, and delusions of guilt or other thinking, that they claimed were commonly cited in studies. They did note that the symptoms of diminished school performance and running away were specific to adolescent depression. The differences they reported appear to result from a focus on less frequent adult symptoms, a lack of operationalized symptom assessment, and a loose set of diagnostic criteria.

A major problem with this study was the use of lax diagnostic criteria for inclusion in the depressed sample. The diagnostic criteria required only (a) depressed mood and (b) absence of schizophrenia, mental retardation, organic brain syndrome, and medical illness. This makes comparison to adult depressed samples, with which a more rigorous diagnostic criteria is used, difficult. The adolescent specific symptoms of diminished school performance and running away, are indeed important

adolescent descriptors. However, Inamdar et al. (1979) presented no evidence to indicate these symptoms were specific to adolescent depression, in comparison to other adolescent psychopathology.

Strober et al. (1981a) provide further support for the contention that adolesent depressive symptomotology is similar to that of the adult disorder. In addition, the study reliably differentiated between endogenous, retarded, and psychotic subtypes of adolescent depression, although these three subtypes were not as prevalent in adolescents as in adults. This was a very strong study using standardized assessment interviews (SADS) and diagnostic criteria (DSM-III).

Carlson and Cantwell (1979) listed ten depressive symptoms in the order of frequency in a sample of adolescent depressives. The symptoms were respectively: suicidal ideation, low self esteem, dysphoric mood, hopelessness, insomnia, somatic complaints, anhedonia, tiredness, poor school performance, and changed appetite. Carlson and Cantwell (1979) also compared the frequency of these symptoms in the depressed sample, with all other psychodiagnostic disorders using an overall sample of 102 adolescents. They found these symptoms to be statistically more frequent in the depressed sample than in any other diagnostic group. This was significant at $p < .05$ for all of the symptoms, with the exception of

changed appetite. This statistical differentiation indicates that there is a specific symptom cluster unique to adolescent depression.

Incarcerated Delinquents

The third category includes studies on the depressive phenomena of incarcerated adolescent delinquents. Both Chiles et al. (1980) and Kashani et al. (1980) used similar assessment methods and diagnostic criteria to delineate depressed groups that were very similar in symptomotology to the adolescent psychiatric depressives mentioned above. Chiles et al. (1980) also provided a comparison that statistically differentiated the freqency of symptomology of the depressed from the nondepressed delinquents ($p < .05$).

A unique finding reported by Chiles et al. (1980) was that a high correlation of adolesent depression with substance abuse existed in incarcerated delinquents. They reported that 60% of the depressed sample used drugs and/or alcohol to relieve their dysphoric feelings. They implied that substance abuse was a manifestation or symptom of depression within this population. However, an equally plausible explanation would be that substance abuse, like conduct disorder, is another clinical disorder concurrent with the depression. An interesting and important area for additional research with this population would be the exploration of the relationship between depression and

conduct disorder.

School Phobics

The final category includes the most specialized data. It looks at adolescent depression in a particular subgroup of young persons who refuse to attend school. Kolvin, Berney, and Bhate (1984) reported that the depressive symptoms in a school phobic depressed sample were similar to other adolescent depressive populations. They reported that the symptomotology of the depressed group was substantially different from the nondepressed group, but did not compare them statistically. This type of research is very important and valuable as it increases the diversity of depressed samples studied. This supports the thesis that there is a homogenous symptom cluster specific to adolescent depression.

Discussion

In examining the symptomotology in Table 1 and the more systematic research it represents, it is difficult to disagree with Kovacs' and Beck's (1977) first conclusion. The actual symptoms reported indicate that adolescent depression is quite similar to the adult depressive disorder. The primary symptom cluster associated with adolescent depression appears to be: feelings of dysphoria, anhedonia, low self esteem or feelings of worthlessness, difficulties concentrating, sleep disturbance, appetite or weight change, fatigue, and

suicidal ideation/attempts. There is evidence for other, less pervasive symptoms but the above appear to be the core symptom cluster. The only differences in comparison to adult depression appear to be lower rates for irritability/agitation, lower reported incidence of anorexia, and less detailed phenomenology on cognitive functioning for adolescents.

Generally, adolescent depressive symptoms are proportionately very similar to those found for adults, and this may be taken as further evidence of a stable and homogeneous set of symptomotology. The primary symptom cluster is very similar to the DSM-III diagnostic criteria for adult depression. This may indicate either that the criteria are valid descriptors for delineating adolescent depression or that the symptoms merely reflect the diagnostic criteria used to specify the depressed samples. Since they are interdependent this may be circular thinking. However, the fact that these symptoms were similar across various populations and assessment techniques is significant. In addition, two of the studies (Carlson & Cantwell, 1979; Chiles et al., 1980) statistically differentiated their depressed samples from other diagnostic groups indicating that this symptom cluster delineates a specific clinical entity.

Many of the studies reported that the adolescents looked sad only when they were talking about their sad

moods, and that dysphoria was rarely a presenting complaint. Many adolescents described their phenomenological experience as bored, "out of it", and apathetic. The nature, extent, and chronicity of their depressed moods and associated symptoms were revealed primarily through systematic inquiry. It appears that adolescents may have difficulty conceptualizing and verbalizing their dysphoric moods and related experience in the way that adults do. This may be related to developmental issues, or it may be that adolescents have not learned how to deal with this kind of experience, because it has never before happened to them. Adolescent depression and its related symptoms do appear to exist, and can be delineated through systematic clinical inquiry, with a focus on affect.

A fascinating and potentially frightening finding involves the comparison of adolescent and adult suicidal ideation and attempts. Adolescents seem to have a slightly higher rate of suicidal ideation and a decidedly higher rate of suicide attempts. This may be one area where age specific developmental characteristics differentiate adolescent depression from adult depression. An adolescent's less developed cognitive abilities, emotional controls, and social skills combined with physiological changes and intense emotions (love and aggression), may predispose him/her to more readily act out on his/her

painful feelings.

Even though the recent evidence shows an increasingly consistant prevalence and a homogeneous set of depressive symptomotology, adolescent depressive disorder still remains only a descriptive concept and not a valid clinical disorder. It still needs to be reliably differentiated from other adolescent psychopathology before subsequent research into biological and genetic correlates, intervention responsiveness, and psychosocial factors can take place. This brings us to the next section, that of classification or nosology.

Nosology

The majority of the research on adolescent depression has focused primarily on its symptomatic and syndromal nature. A major limitation of this research has been the lack of a generally accepted valid and reliable diagnostic classification system. If adolescent depression is to be accepted and studied as a disorder, a valid and reliable nosology is necessary. Without it, there is no means by which adolescent depression may be systematically differentiated from normal developmental trends or other psychopathology. There would also be no basis on which to delineate adolescent depression so that corresponding natural history, family history, treatment responsiveness, biochemical, and psychosocial characteristics could be accurately examined.

Research that empirically examines the reliability and validity of currently utilized diagnostic criteria has been practically nonexistant. Only within the last four or five years has research begun to address this problem. This section will review the diagnostic criteria currently being used in research on adolescent depression, the research concerning these criteria, and research that is beginning to provide support for the contention that adolescent depression be considered a disorder.

The DSM-III diagnostic criteria have become widely accepted and utilized in clinical work. The acceptance, however, does not necessarily establish their veracity. This is particularly evident in the lack of substantiating research regarding the reliability and validity of the DSM-III diagnostic criteria for child and adolescent depression. The National Institute of Mental Health sponsored two sets of field trials to examine the inter-rater reliability of the DSM-III diagnostic criteria (Spitzer & Foreman, 1979; Spitzer, Foreman, & Nee, 1979). The kappa coefficients of agreement for all child and adolescent affective disorders were Ø.53 for phase I (n = 71) and Ø.3Ø for phase II (n = 55) of the field trials. For major depression they were Ø.36 and -Ø.Ø2 respectively, indicating that child and adolescent affective disorders cannot be reliably diagnosed. The kappa statistics for adult affective disorders were Ø.69

(n = 339) and Ø.83 (n = 331) respectively, indicating good inter-rater reliability. There is no information concerning validity given in the DSM-III manual, nor does it mention the controversy of using adult criteria for child and adolescent depression.

Research on adolescent depression has benefited greatly from the development of operationalized diagnostic criteria and standardized assessment measures (Kazdin & Petti, 1982; Puig-Antich, 1982). However, the question as to what is the most valid and reliable set of diagnostic criteria for adolescent depression remains unanswered. Currently there are two approaches to the diagnosis and classification of adolescent depression. Proponents of the first approach contend that although there may be different age associated features, adolescent depression does not differ significantly from adult depression (Carlson, 1981; Cytryn, McKnew, & Bunney, 1980; Puig-Antich, 1982; Robbins, Alessi, Cook, Pozanaski, & Yanchyshyn, 1982). This group uses the DSM-III or RDC adult depression diagnostic criteria. They contend that effective assessment procedures should be developed before it is assumed that the diagnostic criteria are different. Proponents of the second approach utilize modified adult diagnostic criteria, because they hold that the essential features of adolescent depression differ from those of adult depression. Weinberg, Rutmar, Sullivan, Penick, and Dietz (1973) have been the major and most

enduring proponents of this view.

The development of the criteria for both approaches has a common origin. Systematic operational diagnostic criteria for depression and other psychiatric disorders originated with the development of the Feighner criteria (Feighner, Robins, Guze, Woodruff, Winokur, & Munoz, 1972). These were a set of operationalized diagnostic criteria developed specifically for psychiatric research with adults. Spitzer, Endicott, and Robins (1978) used the Feighner criteria as the starting point for the operational criteria of a larger group of psychiatric disorders called the Research Diagnostic Criteria (RDC). The RDC in turn, were the starting point for the delineation of an even larger and more comprehensive group of psychiatric disorders called the DSM-III. The Weinberg criteria (Weinberg et al., 1973) were originally derived by modifying the Feighner criteria for depression, for use with children and adolescents.

The Feighner criteria and RDC were developed specifically for research and tend to be relatively restrictive. The DSM-III criteria were developed primarily for clinical use and tend to be relatively broad. The Weinberg criteria were developed specifically for research with children and adolescents, and they articulate age appropriate symptomotology.

The Feighner, RDC, and DSM-III criteria for depression

are listed in Table 2. They are generally quite similar, the most significant difference being their required duration. The Feighner criteria requires a duration of one month; the DSM-III, two weeks; and the RDC, one week. There appears to be no consistant reasoning for these differences. The Feighner criteria specifically require dysphoric mood, while the RDC and the DSM-III criteria require dysphoric mood or anhedonia. The Feighner criteria and the RDC require five of eight additional symptoms, while the DSM-III criteria only require four. The exclusion criteria are basically the same, except that the Feighner criteria rule out other pre-existing psychiatric or medical conditions that could account for the depressive symptomotology. The RDC and DSM-III criteria require that both diagnoses be made if two disorders are present. Research on adolescent depression has primarily utilized the RDC and the DSM-III criteria. The two are very similar and some investigators consider them to be essentially the same (Carlson & Cantwell, 1979; Puig-Angich, 1982).

Table 3 presents a comparison of the DSM-III and Weinberg criteria, representing the two current approaches to the diagnosis and classification of adolescent depression. The most noticeable difference appears to be in their general structure. Where the DSM-III criteria require dysphoric mood or anhedonia, the Weinberg criteria require both dysphoric mood and self depreciatory ideation.

Table 2.

Comparison of the Feighner, RDC, and DSM-III Criteria for Major Depression

A. Dysphoric Mood	A. One or more distinct periods of dysphoric mood or anhedonia	A. Dyphoric mood or anhedonia
B. Additional Symptoms, at least five of the following:	B. Additional Symptoms, at least five of the following:	B. Additional Symptoms, at least four of the following:
1. poor appetite and weight loss	1. appetite increase or decrease weight gain or loss	1. appetite/weight gain/loss
2. insomnia or hypersomnia	2. insomnia or hypersomnia	2. sleep difficulty
3. loss of energy	3. loss of energy/fatigue	3. loss of energy
4. psychomotor agitation or retardation	4. psychomotor agitation or retardation	4. psychomotor agitation or retardation
5. loss of interest in usual activites including sex	5. loss of interest/pleasure in social contact or sex	5. loss of interest or pleasure in usual activities
6. self reproach or guilt	6. self reproach or guilt	6. self reproach/ inappropriate guilt

Table 2 continued

7. diminished ability to think or concentrate	7. diminished ability to think or concentrate	7. diminished concentration
8. recurrent thoughts of death and suicide	8. recurrent thoughts of death and suicide	8. suicidal tendencies
C. Duration: at least one month	C. Duration: at least one week	C. Duration: at least two weeks
D. Exclusions: no other preexisting psychiatric or medical condition that could account for depressive symptoms; massive or peculiar alteration of perception and thinking as major manifestation of illness.	D. Exclusion: schizophrenia, affect incongruent delusions or hallucination for several days or intermittant for a week, formal thought disorder.	D. Exclusions: schizophrenic symptoms, organic mental disorder, residual type schizophrenia, simple bereavement
E. Other: none	E. Other: functionally impaired	E. Other: none

Table 3.

Comparison of DSM-III and Weinberg Criteria for Depression

DSM-III	Weinberg
A. Requires either	A. Requires both
1. Dysphoric mood	1. Dysphoric mood: statements or apperance of sadness, loneliness, unhappiness, hopelessness and/or pesisimism; mood swings, moodiness; irritable, easily annoyed; hypersensitive, cries easily; negative, difficult to please
2. Anhedonia: loss of interest or pleasure in all or almost all usual activites and pastimes	2. Self-depreciatory ideation: feeling of being worthless, useless, dumb, stupid, ugly, guilty (negative self concept); belief of persecution; death wishes; desire to run away or leave home; suicidal thoughts, attempts
B. Requires at least four of the following eight	B. Requires at least two of the following eight
1. Appetite/weight gain/loss when not dieting	1. Unusual change in appetite and/or weight
2. Insomnia or hypersomnia	2. Sleep disturbance: initial or terminal insomnia, restless sleep; difficulty walking in the morning
3. Psychomotor agitation or retardation	3. Aggressive behavior (Agitation): difficult to get along with; quarrelsome; disrespectful of authority; belligerent, hostile, agitation; excessive fighting or sudden anger
4. Loss of energy, fatigue	4. Loss of usual energy: loss of usual personal interests or pursuits other than school; decreased energy, mental and/or physical fatigue

Table 3 continued

5. Loss of interest or pleasure in usual activities	5. (May correspond to Weinberg B9)
6. Self reproach, feelings of worthlessness, inappropriate guilt	6. (May correspond to Weinberg A2)
7. Diminished ability to think or concentrate	7. Change in school performance: frequent complaints from teachers regarding daydreaming, poor concentration, poor memory; loss of usual work effort in school subjects; loss of usual interest in nonacademic school activities
8. Suicidal ideation or attempts	8. (May correspond to Weinberg A2)
9. (May correspond to DSM-III A2)	9. Diminished socialization: decreased group participation; less friendly, outgoing; socially withdrawing; loss of usual social interests.
10. (Does not correspond)	10. Change in attitude toward school: does not enjoy school activities; does not want or refuses to attend school
11. (Does not correspond)	11. Somatic complaints: non-migraine headaches; abdominal pain; muscle aches or pain; other somatic complaints or concerns
C. Duration of at least one month	C. Duration of at least two weeks
D. Must be a change from usual behavior	D. Not Applicable
E. Exclusions: not clear	E. Exclusions: Schizophrenic symptoms, organic mental disorder, simple bereavement

Where the DSM-III criteria require four of eight additional symptoms, the Weinberg criteria require only two of its own eight additional symptoms. The Weinberg criteria require a duration of one month. This is the same as the Feighner criteria, but the DSM-III criteria require only two weeks. A major limitation of the Weinberg criteria is the lack of specific exclusional criteria. The specific examples given in the Weinberg criteria for each of the symptoms also appear to cover a wider range of adolescent symptoms and psychiatric disorders than do the DSM-III criteria. The Weinberg criteria appear to delineate symptomotology reminiscent of the older views of masked depression and depressive equivalents.

Thus it appears that the Weinberg criteria are more encompassing than the DSM-III criteria, and that using them would result in a less homogeneous group of subjects. This is exactly what Carlson and Cantwell (1982) found when they used both the DSM-III and the Weinberg criteria for depression on randomly selected psychiatrically referred children, aged 7 through 17. In a reasonably systematic comparison, they found that virtually all the subjects who met the DSM-III criteria also met the Weinberg criteria. However, a substantial number (42%) of those who met the Weinberg criteria did not meet the DSM-III criteria. This appears to indicate that the DSM-III criteria are more restrictive, delineating a more homogeneous group. A

vitally important question arises: Are the DSM-III criteria too restrictive, thereby exluding children and adolescents who may be depressed and need treatment? Further research is needed to answer this question.

Empirical research concerning the reliability and validity of adolescent depression diagnostic criteria is extremely scarce. The study by Carlson and Cantwell (1982) mentioned above is the most systematic and definitive. Strober, Green, and Carlson (1981b) examined the reliability of DSM-III diagnoses in 95 consecutively admitted adolescent psychiatric inpatients. Two experienced clinicians independently diagnosed each patient. The clinicians, however, were not entirely independent because they conducted the semi-structured diagnostic interview jointly. The level of agreement for depression ($\underline{k}$ = .75) was comparable to the DSM-III inter-rater reliability field trials (American Psychiatric Association, 1980, pp. 467-472) for adult depression ($\underline{k}$ = .68, .80). This was considerably better than the level of agreement for children and adolescents in the DSM-III field trials ($\underline{k}$ = .36, .02). More of this kind of research is greatly needed.

Robbins et al. (1982) judged past research to be lacking in common diagnostic terminology, and questioned the current reliability and validity of diagnosis in adolescent depression. They used the RDC applied to 33

adolescent psychiatric inpatients and delineated nine as depressed. They used the depressed sample to examine the reliability of two rating scales between independent raters. This study provided useful information concerning the rating scales and the validity of the depression diagnosis. However, it ignored a potentially important factor when it failed to assess the reliability of the RDC criteria. They arrived at a diagnosis through clinical consensus, without evaluating the RDC's reliability for adolescent depression.

Beardslee, Klerman, Keller, Lavori, and Podoresky (1985) claimed to examine the validity of the DSM-III diagnoses of depression in nine adolescents each of whom were offspring of parents who had affective disorders. Their claim was an overstatement. They systematically interviewed the subjects in regards to past experience and found that they did meet DSM-III criteria for depression. The researchers made no attempt to validate the diagnoses through any other means. This study is an example of the need for precise terminology in research on adolescent depression.

In a recent study, Berndt and Zinn (1984) used standardized assessment (K-SADS), the MDI (Multiscore Depression Inventory: a 118-item true/false self report questionnaire with reported good psychometric properties), and team consensus DSM-III diagnoses to delineate and

compare four diagnostic groups of adolescent psychiatric inpatients. The groups were: (a) pure depression which included major, dysthymic, and atypical depression, n = 10; (b) pure conduct disorder, n = 11; (c) mixed depression and conduct disorder, n = 10; and (d) mixed remaining diagnoses, n = 10. They found that patients with the DSM-III diagnoses of depression were significantly more symptomatic on the MDI than were the other adolescent patients ($p < .01$). Patients diagnosed with depression or mixed depression/conduct disorder were virtually indistinguishable on the MDI, while both of these groups were well distinguished from the conduct disorder group and mixed remaining diagnoses group. This study is constructive, in terms of providing evidence for validiting the diagnosis of depression. It would, however, have been more helpful if it had included an evaluation of reliability of the DSM-III diagnostic criteria.

Carlson and Cantwell (1979) and Chiles et al. (1980) both used the DSM-III diagnostic criteria to assess their samples. They found significant symptomatic differences between subjects diagnosed as depressed and subjects with all other psychiatric diagnoses ($p < .05$). These studies provide strong support for the specificity of the diagnostic criteria to differentiate groups of psychopathology. This indirectly supports the reliability and validity of the DSM-III depression diagnosis for

adolescents.

These studies are merely a beginning. They do not provide enough conclusive empirical evidence to clearly demonstrate that adolescent depression as a distinct diagnosis has theoretical and scientific advantage. They do point out the need to further examine and substantiate the reliability of the diagnostic criteria. This need has been largely ignored. The research falls short of providing the empirical evidence needed to establish the disorder status of adolescent depression. Yet this does not imply that such empirical evidence is unobtainable.

This section will conclude with a discussion of some preliminary research that is beginning to provide the evidence needed to establish adolescent depression as a distinct clinical disorder. In a major review, Lefkowitz and Burton (1978) questioned the stability of depressive symptoms in children and adolescents, implying that they were merely normal transient developmental trends. In subsequent research Tesiny and Lefkowitz (1982) addressed this issue directly. Using a sample of depressed fifth and sixth graders (Lefkowitz & Tesiny, 1980), they found that the depressive symptoms were stable over a six month period.

In an extensive study with adolescents, Strober (1983) found good inter-rater reliability for the RDC to classify and subclassify adolescent depression (Resulting Kappa

Coefficients of agreement for 8 subtypes ranged from .58 to .82). He also found evidence linking depression genetically within families, particularly with relation to the endogenous subtype. Strober (1983) also delineated a biological marker (pituitary adrenal disinhibitor characteristic) within an adolescent primary endogenous subtype of depression.

In the most comprehensive and systematic study to date, Kovacs, Funberg, Crouse-Novak, Paviauskas, and Finkelstein (1984) conducted a prospective, longitudinal, and controlled nosological study. The study, first of three parts, focused on the characteristics and validity of the DSM-III diagnoses of major depression, dysthymic depression, and adjustment disorder with depressed mood. The study began with children aged 8 to 13. It followed them for approximately six years, and is ongoing. Their data provided strong evidence that differentiated these three types of depression along several variables. Differences were found relating to age at onset and patterns of recovery. Time to recovery was most favorable for the adjustment disorders (90.0% remission during nine months), and least favorable for dysthymia (89.0% remission rate during six years). They found that major depression and dysthymia were similar with relation to the prevalance of concurrent, nonaffective disorders. Finally, an early age of onset for major depression and dysthymia predicted

a more protracted illness.

These studies are breaking new ground, while bringing supporting evidence to the study of adolescent depression as a clinical disorder. The general state of methodology is improving in the study of adolescent depression. The final section will discuss the current clinical status of adolescent depression and the implications for further research.

Conclusion

Evidence derived from the research literature supporting the concept of adolescent depression as a clinical disorder is considerably stronger than it was eight to ten years ago. Yet uncertainty regarding a valid and reliable means of diagnosis and classification remains the major obstacle to its empirical verification. It is vital for researchers to agree on an initial list of symptoms (diagnostic criteria), to study these core symptoms within various frameworks, and to work toward ultimately modifying these core criteria as needed for the diagnosis of adolescent depression.

The research shows that adolescent depression is a clinical entity more prevalent than traditionally thought. It also shows that adolescent depression has a homogeneous set of related symptoms, similar to those of the adult depressive disorder. Adolescent depression can be delineated through systematic clinical inquiry, with a

focus on affect. There is increasingly strong empirical support which indicates that adolescent depression is a valid syndrome. These results indicate that it may be a valid disorder also, but further research on the disorder factors of natural history, etiology, response to treatment, biological and genetic correlates is needed. Focus on the adolescent developmental phase will provide evidence regarding the distinctiveness of adolescent depression. However, the lack of agreement about the specific diagnostic criteria and the uncertain reliability of these criteria give even the strongest of the recent studies an element of imprecision.

The high frequency of suicidal ideation/attempts among depressed adolescents underscores the necessity of resolving this nosological issue. The research indicates that depressed adolescents appear to have a slightly higher rate of suicidal ideation and a decidedly higher rate of suicide attempts than depressed adults. This conclusion emphasizes the importance of resolution to nosological difficulties so that research into treatment, psychosocial, and predisposing factors can proceed. Adolescent depression in conjunction with the rapidly rising adolescent suicide rate (Emery, 1983) appears to be a much more serious problem than traditionally thought.

Research on depression is inherently more complex than comparable research with adults because of the adolescent's

developmental changes. The cognitive, social, and physical developmental changes during adolescence have been well documented. However, there is virtually no information concerning the affective developmental changes that occur during adolescence. In the future study of adolescent depression, it will be necessary to begin examining the expression and experience of sad affect and its related symptoms in both psychopathological and well-adjusted populations.

Research methodology has improved during the last five to eight years, but there are still limitations. Future efforts need to focus on developing more systematic methods of assessment and the adoption of a standardized set of diagnostic criteria. Assessment methods need to be multidimensional and more independent. Evaluation of the reliability of the diagnostic criteria should be an integral part of every study, until there are no longer doubts concerning the reliable diagnosis of adolescent depression.

Specific directions for future research include the need for continued phenomenological studies, with increased emphasis on delineating developmental and age specific factors. It will be important to determine which symptoms or sets of symptoms represent an abnormality in functioning, and which are normal developmental trends. There is great need to begin examining treatment

responsiveness, both with psychological and pharmocological interventions. There is also a need for continuing the pioneering efforts of Tesiny and Lefkowitz (1982), Strober (1983), and Kovacs et al. (1984), in studying the disorder characteristics of adolescent depression, treatment responsiveness, psychosocial factors, and epidemiology.

There is no doubt that research on adolescent depression is in its infancy. Additional studies are needed to determine which diagnostic criteria are the most valid. In the final evaluation this will be determined by which criteria identify a more homogeneous group of patients with regard to the related characteristics of a clinical disorder.

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